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# Eighth Annual Report December 31 1966

#### **DIRECTORS**

| F. R. BURTON   |   |  |  | 4 |   |   |     |    | ٠   |     |     |     |      |     |    |    |     | TORONTO      |
|----------------|---|--|--|---|---|---|-----|----|-----|-----|-----|-----|------|-----|----|----|-----|--------------|
| H. J. FRASER   |   |  |  |   |   |   |     |    |     |     |     |     |      |     |    |    |     | TORONTO      |
| W. F. JAMES .  |   |  |  |   |   |   |     |    |     |     |     |     |      |     |    |    |     | TORONTO      |
| P. N. PITCHER  |   |  |  |   |   |   |     |    |     |     |     |     |      |     |    |    |     | TORONTO      |
| J. B. WEBB .   |   |  |  |   |   |   |     |    |     |     |     |     |      |     | ٠  |    |     | CALGARY      |
|                |   |  |  |   |   |   |     |    |     |     |     |     |      |     |    |    |     |              |
|                |   |  |  |   | 0 | F | FI( | CE | RS  | 5   |     |     |      |     |    |    |     |              |
| F. R. BURTON   |   |  |  |   |   |   |     |    |     |     |     |     |      | ٠   |    |    |     | PRESIDENT    |
| W. F. JAMES    |   |  |  |   |   |   |     |    |     |     |     |     |      |     |    |    | Vi  | CE-PRESIDENT |
| J. B. WEBB .   |   |  |  |   |   |   |     | ,  | Vic | E-I | PRE | SID | EN'  | ΓΑΪ | ND | GE | NEI | ral Manager  |
| J. N. STEPHEN  |   |  |  |   |   |   |     | ٠. |     |     |     | A   | SSIS | TAI | T  | GE | NEI | ral Manager  |
| P. H. POWERS   |   |  |  |   |   |   |     |    |     |     |     |     |      |     |    |    |     | TREASURER    |
| D. G. C. MENZE | L |  |  |   |   |   |     |    |     |     |     |     |      |     |    |    |     | SECRETARY    |

TRANSFER AGENT AND REGISTRAR CROWN TRUST COMPANY

AUDITORS
THORNE, MULHOLLAND, HOWSON & McPHERSON

# **Five Year Summary**

| FINANCIAL   | 1966       | 1965         | 1964         | 1963         | 1962         |
|---|------------|--------------|--------------|--------------|--------------|
| FINANCIAL   |            |              |              |              |              |
| Gross Production  | 4,493,407  | \$ 4,292,375 | \$ 3,699,807 | \$ 3,559,884 | \$ 3,058,661 |
| Net Production Income (after royalty and operating costs) | 3,332,191  | 3,237,582    | 2,763,933    | 2,688,062    | 2,269,259    |
| Administrative and General Expense                        | 145,863    | 135,936      | 131,809      | 149,407      | 150,281      |
| Interest Expense  | 142,114    | 135,691      | 156,303      | 187,872      | 190,478      |
| *Exploration Expense                                      | 749,111    | 623,341      | 641,956      | 758,424      | 977,334      |
| Depletion, Depreciation and Write-offs                    | 1,072,420  | 973,734      | 970,495      | 1,277,129    | 1,144,428    |
| Cash Earnings after all cash expenses                     | 2,295,103  | 2,342,614    | 1,833,865    | 1,592,359    | 951,166      |
| Net Profit (Loss)   | 1,222,683  | 1,385,445    | 863,370      | 315,230      | (193,262)    |
| Loans Outstanding (Bank and Other)                        | 2,426,000  | 2,390,000    | 2,528,000    | 3,128,000    | 3,248,000    |
| OPERATING   |            |              |              |              |              |
| Net Daily Production: Oil and Condensate (barrels)        | 3,199      | 3,025        | 2,603        | 2,537        | 2,312        |
| Natural Gas (thousands of cubic feet)                     | 14,047     | 14,523       | 12,704       | 11,336       | 8,880        |
| Reserves — Net Proven: Crude Oil (barrels)                | 41,140,000 | 41,670,000   | 37,036,000   | 26,424,000   | 22,100,000   |
| Natural Gas Liquids (barrels)                             | 4,560,000  | 3,470,000    | 2,700,000    | 2,790,000    | 3,740,000    |
| Natural Gas (billions of cubic feet) .                    | 149.25     | 148.06       | 138.08       | 140.90       | 168.79       |
| Sulphur (long tons)                                       | 290,000    | 272,000      | 181,000      | _            | · _          |
| **Net Oil Wells   | 52.38      | 52.05        | 47.68        | 45.20        | 40.86        |
| **Net Gas Wells   | 12.25      | 10.96        | 10.66        | 10.23        | 9.27         |
| Net Acreage   | 2,691,002  | 716,527      | 679,122      | 338,224      | 341,446      |

<sup>\*</sup>Includes exploration drilling, dry hole costs, geological, geophysical and unproven property expense.

<sup>\*\*</sup>Does not include royalty interests.

# Report of the Directors

#### TO THE SHAREHOLDERS:

Your Directors are pleased to present their Report for the year ended December 31, 1966, together with notes on operations and developments on your Company's properties during the past year, and the Financial Statements with the Auditors' report thereon.

#### THE COMPANY

#### FINANCIAL

Contrary to expectations, your Company's production of crude oil during 1966 showed a modest increase over 1965. As a result, gross revenue was \$4,493,407 and net production income after deduction of royalties and operating expenses was \$3,332,191, an increase of 3% over 1965. After deducting administrative and general expense of \$145,863, interest charges of \$142,114, and exploration costs of \$749,111, net cash income was \$2,295,103, compared to \$2,342,614 in 1965, the decrease of 2% resulting mainly from higher exploration expenditures. After providing \$1,072,420 for depletion, depreciation and other write-offs, Alminex had a net income from operations of \$1,222,683 compared to \$1,368,880 in 1965, a decrease of 10.6%. Dividends of \$759,916, or  $10\phi$  per share, were paid to the shareholders.

Capital expenditures totalled \$1,047,252, of which \$298,986 was on development, \$546,999 on plant facilities, \$141,708 on production and other equipment and \$59,559 on land acquisitions. Loans outstanding at December 31, 1966, amounted to \$2,426,000 compared to \$2,390,000 at the end of 1965.

#### PRODUCTION

Your Company's crude oil plus natural gas liquids (NGL) production for 1966, after royalty, averaged 3,199 barrels per day, an increase of 6% over 1965. Crude oil totalled 1,004,399 barrels, a 6.8% increase, whereas NGL, at 163,496 barrels, was just slightly over the 1965 production. The more important increases in production occurred at Swan Hills, Virginia Hills and Mitsue. A marked decrease was again recorded at Crossfield Cardium.

Production of NGL at Carstairs decreased considerably compared to 1965 because of the lower gas through-put, but this effect was offset by the increased recovery at Harmattan and the Calgary units, and a full year's production at South Elkton.

Production of natural gas, after royalty, was 5,127 MMcf (million cubic feet) compared to 5,301 MMcf in 1965, a decrease of 3%. During the first half of 1966, following the enhanced sales to Trans-Canada Pipe Lines Limited enjoyed in 1965, deliveries at Bindloss and Carstairs returned to normal contractual volumes. Through the final quarter of 1966, however, sales exceeded the 1965 volume for the same period by almost 8%, although, as noted, the over-all effect through the year was a decrease of 3%. Significant increases occurred at Hoosier-Coleville, Retlaw, South Elkton and Braeburn.

Comparative figures for oil, NGL and gas production during 1965 and 1966, by fields, are given in the tables at the end of this report.

#### RESERVES

Your Company's proven reserves of crude oil and natural gas liquids, as of December 31, 1966, after allowing for the year's production of 1,167,895 barrels, were 45,700,000 barrels, an increase of 1.2% during the past year. Crude oil decreased slightly because of lack of success in exploratory drilling and only minor additions by development drilling. Natural gas liquids showed a large increase through the additional recovery of propane and butane to be available when operation of the new facilities at the Carstairs plant commences in July, 1967.

Proven gas reserves, after deduction of 1966 production, were 149 Billion cubic feet (Bcf), maintaining the same level as previously chiefly through the favourable drilling results at Harmattan Leduc and Marten Hills and upward revision of the Retlaw field reserve. Your Company's proven sulphur reserves are located principally at Harmattan Leduc field, where a revised estimate now places the Alminex share at 290,000 long tons.

#### **EXPLORATION**

The exploration program conducted in 1966 was enlarged compared to that of the previous

year. Exploratory drilling resulted in five gas discoveries, four of which are of secondary importance, but the fifth proved up an important extension of the Harmattan Leduc sulphurous gas field. Extensive seismic surveys were undertaken and one unsuccessful well was drilled on your Company's large holdings in northern Alberta (see map). Additional marine seismic mapping was conducted on the North Sea licences, where the first drilling will be undertaken in 1968. An agreement was made with Falconbridge Nickel Mines Limited whereunder that company may earn a 50% share interest in your Company's wholly-owned subsidiary, Alminex (U.K.) Limited, by paying the Alminex share of the cost of two wells to be drilled on the three licences (covering 767,000 acres) in which Alminex (U.K.) has a 25% interest.

#### **DEVELOPMENT**

During 1966, twelve development wells were drilled at Inverness, Mitsue, and Freeman in Alberta, Scot Point in British Columbia and Willey in Ontario. Although drilling was at a low ebb, your Company's participations in three plant construction projects during the year gave rise to heavy expenditures in this category. The additional facilities constructed at the Harmattan Area plant during 1965-66 went on stream March 1, 1966, providing a notable increase in recovery of condensate, propane and butane from the processing of gas presently being cycled at Harmattan-Elkton and Harmattan East fields. Construction of a similar addition to the Carstairs-Crossfield plant was commenced in mid-1966 and is expected to be operating by July 1, 1967, yielding another increment to your Company's production of liquefied petroleum gases. The new Harmattan Leduc sulphur recovery plant went on stream in September, 1966, and has experienced various difficulties, the most serious problem being the interruption of raw gas supply by sulphur deposition in the producing wells. Two additional wells are being drilled to relieve this situation. In the meantime, the plant is operating at 50% capacity, turning out 400 tons of sulphur daily and 8 MMcf/day of saleable gas. At present, most of the sulphur is being sold in the Canadian and United States markets, the remainder being stock-piled for later sale in the export market.

#### COMPANY OUTLOOK

The 1966 exploration program failed to discover new oil reserves but added significantly to proven gas and sulphur reserves at Harmattan Leduc and to proven and probable gas reserves at Marten Hills. Exploratory work during 1967 will be on approximately the same scale as in 1966, but

with the emphasis placed on northern Alberta. Your Company's largest yearly expenditures to date on seismic surveys will be spent on certain parts of the Meander River holdings and on the South Bistcho block. At least one well will be drilled on these lands this winter. It will take several years to evaluate the Alberta and North Sea holdings but prospects for a discovery of importance are bright.

Your Company's 1967 production of oil and gas will be at least equal to that of 1966, with a good possibility of modest increases in both. A small increase in net production income is expected.

Your Directors again wish to express their appreciation of the loyal and competent service rendered by the staff to your Company during 1966.

#### THE INDUSTRY

The western Canadian oil and gas industry in 1966 again enjoyed substantial growth in both oil and gas production. The average daily production of crude oil and natural gas liquids was 1,011,000 barrels, an increase of 9.5%, considerably higher than the forecast of a year ago. The improvement was due to unexpectedly increased exports to the United States, crude oil and equivalent averaging 350,000 barrels per day with liquefied petroleum gases bringing the total to 376,000 barrels per day for a gain of 17% over 1965. The increased U.S. demand for Canadian crude was caused largely by the current domestic supply problem in the northern tier of mid-western refining centres, coupled with many refiners' preference for the lower-priced Canadian oil. This situation seems certain to continue through 1967 and, combined with the slow growth of the Canadian market, is expected to yield an over-all increase of 7% to 8% this year.

Production of raw natural gas in western Canada averaged 3,828 MMcf/day, an increase of 6.5% over 1965. Total sales of pipeline gas averaged 2,830 MMcf/day, an increase of 7.6% over 1965. Of this total, the domestic market used 1,750 MMcf/day, an increase of 11.5%, and net exports to the U.S. totalled 1,080 MMcf/day, an increase of 2% compared to 1965. Total gas sales in 1967 are expected to exceed 1966 sales by about 10%. The expected continuing steady growth of the Canadian market and the probability of large increases in exports to the U.S. lend encouragement to the producing and exploring industry in western Canada. If the three separately proposed enlargements of exports are approved in 1967 — namely, the Great Lakes scheme, the Pacific Northwest expansion and the increase to the California market then by 1970 gas exports to the U.S. may reach 2,100 MMcf/day, a gain of 70% over the 1966 Sulphur production from western Canada's gas processing plants in 1966 was 1,750,000 long tons, an increase of 10% over 1965. Sales of sulphur totalled 1,821,000 long tons, an increase of 2.3%. In 1967, production is expected to increase 25% from expansion of existing plants and construction of new facilities. The North American and overseas demands continue to grow and at present sulphur is in short supply.

Oil consumption in Canada during 1966 averaged 1,186,000 barrels per day, a growth of 6.6% compared to 1965. The total was made up of 606,-000 bbls./day of Canadian crude oil and equivalent, 440,000 bbls./day of imported crude and 140,000 bbls./day of imported refined products. The steady growth of imports continued to fill almost half of Canada's petroleum requirements, actually 49% in 1966 compared to 47% in 1965. Our deficit — total imports, chiefly from Venezuela and the Middle East, less exports to the United States — in 1966 amounted to 231,000 bbls./day costing Canada over \$200,000,000 yearly, an important factor in the balance of payments problem. The situation in Alberta, where production is presently restricted to 45% of capacity, will be further aggravated by the large increase in reserves and productivity being added by developments in the northwestern part of the province. The main hope for important increase in sales of western Canadian oil lies in the mid-west refining area of the northern United States. The sharp growth in exports to this region during 1966 has already been noted. The possibility of marketing a large volume of Canadian crude in the Chicago refining area has received close study by government and industry during the past year, and the economics of early construction of a large diameter pipeline, as an extension of the Interprovincial Pipe Line Company system from Superior to Chicago, are being carefully considered. Interprovincial's 1967 program of additions to its 34-inch line has been expanded so that only 355 miles will remain to be done in 1968 to complete this loop of the system between Edmonton and Superior. The 400mile extension of the 34-inch line to Chicago would provide transmission for an ultimate 400,000 to 500,000 barrels per day into this market. The past year has witnessed a growing interest among major mid-west U.S. refining companies as well as major and independent Canadian producers in pressing the case for access to the Chicago market. Urgency has been added not only by the growth of Alberta's reserves but also by the competition for this market posed by Capline, the 36-inch diameter pipe line which will soon be under construction from Louisiana to Wood River, Illinois, a refining centre 250 miles south of Chicago. It is expected that this line will eventually be extended into Chicago. In view of the projected massive growth of demand in the midwest region in general, there is widely-held opinion

that both the Interprovincial and the Capline sources of supply will be required to meet it. The decision with respect to increased exports of Canadian crude is, of course, related to U.S. petroleum imports policy and becomes a matter of negotiations between the Canadian and U.S. governments which are understood to be in progress. There seems reason to believe that our Canadian authorities are pressing for an early decision so that the Interprovincial extension to Chicago could be completed in 1968. The prospect of this large addition to the outlets for Canadian crude oil and equivalent is decidedly encouraging for the western Canadian oil producers.

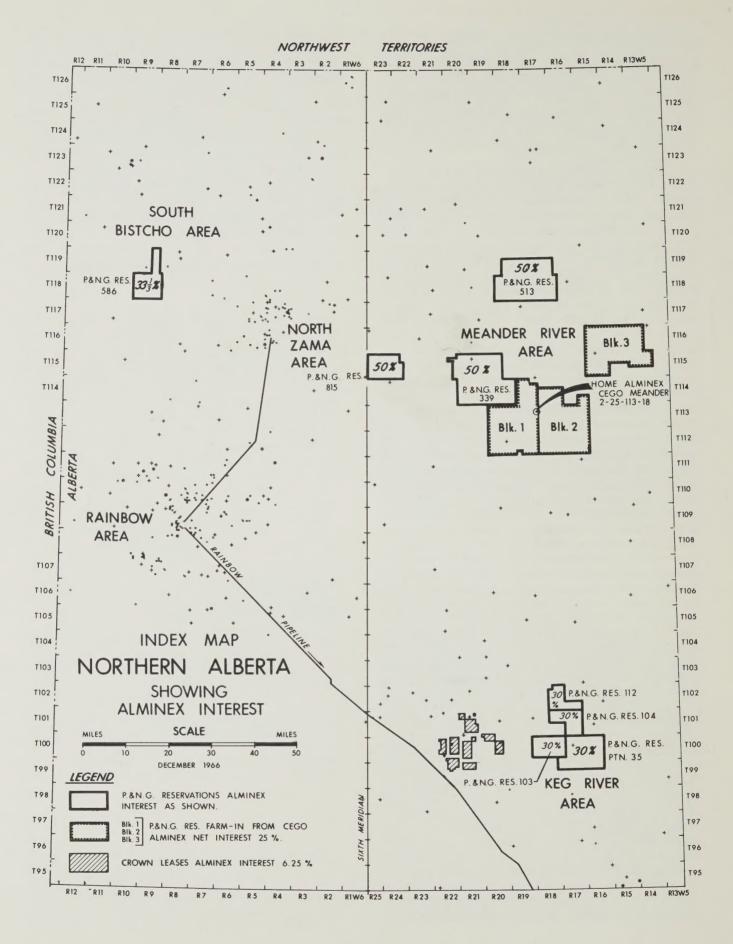
On behalf of the Directors,

J. R. Buton

President.

Vice-President and General Manager.

Toronto, Ontario February 23, 1967



## **Notes on Operations**

#### EXPLORATORY DRILLING

Alminex participated in the drilling of 23 exploratory wells during 1966, of which five were gas discoveries and eighteen dry holes. The gas finds were made in the following areas of central Alberta: a step-out well on the west flank of the Harmattan Leduc sulphurous gas field; a well near Akuinu, south of Mitsue oil field; and three wells in the Marten Hills gas area, and are summarized as follows:

#### Harmattan Leduc

The Home Alminex et al Harmattan 6-8L-32-4-W5M well, located two miles southwest of the discovery well in this Devonian reef gas field, was successfully completed at 11,250 feet in depth, thus proving up a considerable westward extension of the field. Subsequently, the well and the containing acreage were added to the Harmattan Leduc Unit, in which the Company now owns a 4.49% interest, and the gas is being produced to the Unit's processing plant.

#### Akuinu

The Home Alminex KCL Akuinu 4-14-67-3-W5M well, situated ten miles south of the Mitsue oil field, was drilled primarily as a test of the Gilwood sand of the Devonian, which proved unproductive. However, a small commercial gas flow was found in a Blairmore (Lower Cretaceous) sand at about 2,800 feet in depth. The well was cased and stands suspended; further development awaits a market. Alminex owns a 25% interest in the well and the surrounding P. & N.G. Reservation No. 47 lands.

#### Marten Hills

An exploratory drilling program was undertaken in this area to follow up the gas discovery made by the Company in 1963 at Home Alminex Marten Hills 10-30-74-25-W4M. Three successful gas wells and one dry hole were drilled during the early winter of 1966, on lease blocks (Alminex interest 25%) scattered through Twps. 73-74, Rgs. 24-25 W4M. These wells, which are indicated to be small commercial producers from the Wabiskaw sand at 2,000 feet in depth, are, along with the original discovery well, suspended awaiting market development. The indicated reserves are under contract to Trans-Canada with deliveries to commence November 1, 1968, providing the requirement of

two trillion cubic feet of reserves for the designated Marten Hills area has been proved by that date. It seems a reasonable expectation that this target will be realized. Alminex owns a 25% interest in some 25,000 acres of leases regarded as proven and probable gas lands, and a 33½% interest in a drilling reservation of 5,760 acres covering some of the corridor lands. Two wells will be drilled on the reservation this winter.

#### OTHER EXPLORATORY INTERESTS

#### Meander River

In this area, located 50 to 75 miles northeast of Rainbow oil field, Alminex owns a 50% interest in three P. & N.G. reservations totalling 220,000 acres and a 50% interest in a farm-in of four reservations totalling 320,000 acres. After some initial seismic mapping in the winter of 1965-66, the first well on this large spread, Home Alminex Meander 10-27-115-20-W4M, was drilled during March, 1966. Encouraging oil showings were obtained but the well was abandoned. Two seismic crews will obtain additional coverage on large portions of the acreage during the winter of 1966-67, and a location has been chosen for a well on the farm-in lands in l.s.d. 2-25-113-18-W5M to be commenced in mid-January, 1967.

#### South Bistcho

The Company owns a one-third interest in P. & N.G. Reservation No. 586, comprising 34,560 acres located 50 miles north of Rainbow oil field. A preliminary seismic survey was conducted during the winter of 1965-66 and an additional amount will be done during the 1966-67 season. Results have been somewhat encouraging and it is hoped that a well will be drilled before the spring break-up in 1967.

#### Arctic Islands

Late in February, 1966, Alminex filed permits (100% interest) on approximately two million acres of lands comprised of scattered blocks in selected geologically favourable areas widely spaced throughout the Arctic Islands sedimentary basin. The Company has farmed out all of these lands to Panarctic Oils Ltd., the deal being dependent upon the latter successfully completing its financial arrangements.

North Sea

The Company, through its wholly-owned subsidiary, Alminex (U.K.) Limited, owns a 25% interest in three off-shore licences totalling 767,000 acres. A large part of the acreage lies adjacent to the Yorkshire coast, the remainder being located 60 miles to the east. Marine seismic mapping of the licences was done chiefly in the summer of 1965 with additional work being carried out in 1966 and several areas of structural interest have been indicated. The prospects on the Company's near-shore holdings have been enhanced by a gas discovery in Yorkshire, a few miles southwest of our group's holdings. Present plans anticipate drilling the first well on the Alminex acreage in 1968.

In view of the high cost of drilling operations in the North Sea, Alminex entred into an agreement with Falconbridge Nickel Mines Limited whereunder Falconbridge can earn a 50% share interest in Alminex (U.K.) Limited by bearing Alminex's share of the cost of drilling two wells. This agreement was confirmed at a special general meeting of Alminex shareholders held August 11, 1966.

#### DEVELOPMENT DRILLING

The Company participated in drilling twelve development wells in 1966, of which seven were completed as oil wells, one is a suspended gas well, and four were abandoned as dry holes. In addition, one probable gas well was drilling at the year-end. The results are summarized as follows:

#### Swan Hills-Inverness

Three successful oil wells were completed, or in process of completion, and one additional well has been classed as a dry hole because of its high water cut. Two of the producers are located on the northeast edge of Inverness Unit, one of which, Home Regent "D" Swan Hills 4-25-68-10-W5M, has been admitted to the Unit (Alminex interest: 7.02%), the other, 10-36-68-10, having so far failed to qualify. The third oil well, Home Regent "C" Swan Hills 4-34-68-11-W5M, lies on the northwest flank of Inverness Unit. One or two additional locations may be drilled in this vicinity in 1967. The Company's interest is  $12\frac{1}{2}$ %.

Freeman (Alminex interest: 8.33%)

One oil producer, H.B. Union Home Freeman 10-1-66-13-W5M, located on the northeast margin

of the field, was completed in 1966. At least one well will be drilled in 1967 to investigate the probable southeastward extension of the field on leases held by Alminex and associates.

Mitsue (Alminex interest: 12½%)

One oil well, Home Alminex KCL Mitsue 10-28-69-3-W5M, was completed at the south end of the Mitsue field, located on a 640-acre lease purchased at moderate cost at a Crown sale in 1965. One development well will be drilled in the central part of the field in 1967.

At the southern extremity of the field, a competitor has demonstrated, by successful drilling, a southeastward extension of the Gilwood sand reservoir from our two Chisholm oil wells. Two locations have been chosen on the Company's acreage (Alminex interest: 25%) for drilling in 1967.

Scot Point (Alminex interest: 6.25%)

At this small oil and gas field in northeastern British Columbia, a west offset to the original discovery well of 1963 was completed early in 1966. The well, Union KCL-ROC Nettle d-68-A 94-H-7, proved a successful oil producer in the Bluesky sand of the Lower Cretaceous, and a commercial gas flow was found in an underlying Triassic sand. A west offset to this well, Union KCL ARCO Nettle d-69-A, was drilled late in 1966 and proved to be structurally higher than expected, yielding gas only from the Bluesky sand and gas from the Triassic sand. There are now four shut-in gas wells in this field awaiting a pipe line outlet to market.

Willey, Ontario (Alminex interest: 5.46%)

One successful oil well, I.O.E. Bluewater Dunwich 1-22-III, was drilled on the southwest margin of the productive area. This well is the sixth producer completed in the Willey field.

#### UNITIZED GAS PROPERTIES & PLANTS

Harmattan Leduc Unit (Alminex interest: 4.49%)

The enlargement, during 1966, of the Harmattan Leduc sulphurous gas field by the successful completion of a westward step-out well, Home Alminex et al Harmattan 6-8L-32-4-W5M, has been mentioned under the caption Exploratory Drilling. The Unit was subsequently enlarged to

include this well and two additional wells drilled by others outside the original Unit area. The Alminex interest in the expanded Unit is 4.49% compared to the original 3.75%. Construction of the gas processing plant, which is owned by the Unit and operated by Canadian Superior Oil Ltd., was completed early in September, 1966, and the plant was then placed on stream. Various difficulties arose, the most important being that of discontinuity of gas supply because the producing wells tend to plug off by sulphur and hydrate deposition in the tubing, thus requiring frequent shut-downs for servicing. Two additional wells are being drilled to ensure continuous deliverability of raw gas supply at the full plant capacity of 42 MMcf/day, which is expected to be attained early in 1967. In the meantime, the plant is operating at 50% capacity, treating about 20 MMcf/day of raw gas from which approximately 400 long tons of sulphur and 8 MMcf of saleable gas are produced per day. Most of the current sulphur production is being sold in the molten state to Canadian and U.S. buyers, the remainder going to the plant stockpile for future sale in the export market. The residue gas is sold to Alberta and Southern Gas Co. Ltd.

#### Harmattan Area Gas Plant

This large plant, also operated by Canadian Superior, now has a capacity of 246 MMcf/day of raw gas and processes gas produced from the Harmattan Elkton (Alminex interest: 2.84%) and Harmattan East (Alminex interest: 0.39%) Units. After recovery of the NGL, the residue gas is returned to the reservoir (cycled) for pressure maintenance but will be produced and sold later on. Additional facilities were constructed during 1965-66 which went on stream March 1, 1966, providing for a much increased recovery of condensate, propane and butane. The Company's share of NGL production in 1966 was 64,868 barrels, an increase of 22% over 1965.

# Carstairs Elkton Gas Unit (Alminex interest: 10.15%)

Production of gas and NGL at Carstairs decreased in 1966 because of the return to normal contractual take volumes by Trans-Canada following the enhanced demand of 1965. The Company's share of residue gas sales was 2,652 MMcf, a decrease of 15%, and of NGL produced was 88,256 barrels, a decrease of 14% compared to 1965. Enlargement of the Carstairs-Crossfield gas processing plant to 305 MMcf/day capacity, with new facilities for propane and butane recovery, was commenced late in 1966, with completion scheduled for July 1, 1967.

#### 1966 DRILLING RECORD

#### EXPLORATORY WELLS COMPLETED (Gross):

|                  | DRY   | OIL   | GAS   |
|------------------|-------|-------|-------|
|                  | HOLES | DISC. | DISC. |
| Alberta: Central | 6     |       | 5     |
| Northern         | 5     | *     |       |
| Saskatchewan     | 4     | _     |       |
| Ontario          | 3     | _     |       |
|                  |       |       |       |
|                  | 18    | _     | 5     |
|                  | =     | =     | =     |

#### DEVELOPMENT WELLS COMPLETED (Gross):

|                  | DRY   | OIL -       | GAS    |
|------------------|-------|-------------|--------|
|                  | HOLES | WELLS       | WELLS  |
| Alberta          |       |             |        |
| Freeman          |       | 1           | _      |
| Inverness        | 1     | 3           |        |
| Mitsue           |       | 1           |        |
| Stettler         | 1     | _           | —      |
| Saskatchewan     |       |             |        |
| Browning         | 1     |             |        |
| Midale South     | 1     |             | _      |
| British Columbia |       |             |        |
| Scot Point       |       | 1           | 1      |
| Ontario          |       |             |        |
| Willey           |       | 1           |        |
|                  |       | *********** | W00000 |
|                  | 4     | 7           | 1      |
|                  |       | =           | ==     |
| TOTALS:          | 22    | 7           | 6      |

#### Reserves

Proven and probable reserves of crude oil, natural gas liquids, natural gas and sulphur, estimated as of December 31, 1966, are shown in the following table compared with the estimated reserves as of December 31, 1965:

|                          | Dec. 31,<br>1966 | Dec. 31,<br>1965 |
|--------------------------|------------------|------------------|
| CRUDE OIL RESERVES       |                  |                  |
| (Millions of Barrels)    |                  |                  |
| Proven Reserves          | 41.14            | 41.67            |
| Probable Reserves        | 7.20             | 7.14             |
| NATURAL GAS LIQUIDS      |                  |                  |
| (Millions of Barrels)    |                  |                  |
| Proven Reserves          | 4.56             | 3.47             |
| Probable Reserves        | .19              | .18              |
| NATURAL GAS              |                  |                  |
| (Billions of Cubic Feet) |                  |                  |
| Proven Reserves          | 149.25           | 148.06           |
| Probable Reserves        | 8.38             | 10.00            |
| SULPHUR                  |                  |                  |
| (Thousands of Long Tons) |                  |                  |
| Proven Reserves          | 290              | 272              |
| Probable Reserves        | 19               | 215              |
|                          |                  |                  |

Only minor increases in proven crude oil reserves resulted from the Company's restricted development drilling program. A sizeable increase occurred at Mitsue where the anticipated introduction of a secondary recovery scheme in 1967 justified application of a higher recovery factor. A downward revision of Inverness reserves partly offset the Mitsue gain. After deduction of the year's production, net remaining proven crude oil reserves decreased slightly more than 1% during 1966.

Proven reserves of natural gas liquids increased by 31% principally on account of the additional recovery of propane and butane to be realized at Carstairs when the new facilities go on stream in July, 1967.

A very minor net increase occurred in remaining proven natural gas reserves. The year's production of 5.1 billion cubic feet was offset by substantial increases in reserves at Harmattan Leduc, Marten Hills and Retlaw.

The Company's proven sulphur reserves, contained principally in the Harmattan Leduc sulphurous gas field, showed an increase of 7%. A very large decrease in probable reserves was recorded, due to the 1965 estimate as to the westward and northward extension of the field having been too optimistic. Future drilling results may prove up a northwestward extension of the field and add considerably to reserves.

#### Land

The following table summarizes the Company's land holdings under reservation and lease categories, showing gross and net acres owned by Alminex Limited and its wholly-owned subsidiary, Alminex (U.K.) Limited, as of December 31, 1966:

|                           | Reserv    | ations    | Lea       | ises        | Totals    |           |  |
|---------------------------|-----------|-----------|-----------|-------------|-----------|-----------|--|
|                           | Gross     | Net       | Gross     | Net         | Gross     | Net       |  |
| Alberta                   | 671,743   | 225,339   | 1,199,798 | 163,005     | 1,871,541 | 388,344   |  |
| Saskatchewan and Manitoba | 294,880   | 56,475    | 25,729    | 9,685       | 320,609   | 66,160    |  |
| British Columbia          |           |           | 95,857    | 13,346      | 95,857    | 13,346    |  |
| Ontario                   | -         |           | 59,614    | 8,540       | 59,614    | 8,540     |  |
| Yukon and N.W.T.          | 1,376,287 | 36,000    | -         | <del></del> | 1,376,287 | 36,000    |  |
| Arctic Islands            | 1,986,823 | 1,986,823 | _         |             | 1,986,823 | 1,986,823 |  |
| North Sea                 |           |           |           |             |           |           |  |
| (Alminex U.K.) (1)        | 767,158   | 191,789   |           |             | 767,158   | 191,789   |  |
|                           | 5,096,891 | 2,496,426 | 1,380,998 | 194,576     | 6,447,889 | 2,691,002 |  |

(1) Subject to the agreement with Falconbridge.

The large increase in acreage during 1966 was due to the acquisition in February of Arctic Islands permits totalling almost two million acres. Minor reductions of gross and net total holdings occurred in Alberta and Ontario.

# **Producing Interests**

#### UNITIZED FIELDS

#### **NON-UNITIZED FIELDS**

| Oil: Alberta                          |           | Oil Wells: Alberta  |             |           |
|---------------------------------------|-----------|---------------------|-------------|-----------|
| UNIT INTE                             | REST - %  |                     | 1966        | 1965      |
| 1966                                  | 1965      |                     | GROSS NET   | GROSS NET |
| Swan Hills Unit #1 4.59               | 4.63      | Mitsue              | 17 2.38     | 16 2.25   |
| Inverness Unit #1 7.02                | 7.01      | Erskine             | 21 2.63     | 21 2.63   |
| Virginia Hills Unit #1 3.55           | 3.57      | Freeman             | 9 0.75      | 8 0.67    |
| Harmattan-Elkton Unit #1 8.81         | 8.81      | Pembina             | 21 1.88     | 21 1.88   |
| Crossfield Cardium Unit #1 7.80       | 7.80      | Stettler            | 1 0.13      | 1 0.13    |
| North Pembina Cardium Unit #1 0.42    | 0.42      | Inverness           | 3 0.38      | 1 0.13    |
| Pembina Cardium Unit #3 1.88          | 1.88      |                     |             |           |
| Westward Ho Unit #1 7.65              | 7.62      |                     |             |           |
| Harmattan East Unit #1 1.17           | 1.17      | Saskatchewan        |             |           |
| Sundre Unit #1 0.21                   | 0.21      | Browning            | 6 1.50      | 7 1.75    |
|                                       |           | Midale South        | 1 0.40      | 1 0.40    |
|                                       |           | Clarilaw            | 3 0.63      | 3 0.63    |
|                                       |           |                     |             |           |
|                                       |           | Ontario             |             |           |
|                                       |           | Willey              | 6 0.33      | 5 0.27    |
|                                       |           | Dunwich             | 1 0.15      | 1 0.15    |
|                                       |           | Dunwich             |             | 1 0.13    |
|                                       |           |                     | 89 11.16    | 85 10.89  |
|                                       |           |                     |             |           |
|                                       |           |                     |             |           |
| Gas: Alberta                          |           |                     |             |           |
| Carstairs Elkton Unit 10.15           | 10.15     |                     |             |           |
| Bindloss Viking Sand Gas Unit 7.97    | 7.98      |                     |             |           |
| Retlaw Unit #1 14.87                  | 14.87     |                     |             |           |
| Calgary Elkton Unit #1 0.40           | 0.40      |                     |             |           |
| Calgary Crossfield Unit #1 0.02       | 0.02      |                     |             |           |
| Atlee-Buffalo-Jenner                  |           |                     |             |           |
| Viking Sand Gas Unit 7.38             | 7.38      |                     |             |           |
| South Elkton Unit #1 11.74            | 11.74     |                     |             |           |
| Crossfield Turner Valley Unit #1 0.09 | 0.09      |                     |             |           |
| Erskine Gas Unit #1 2.79              | 3.28      |                     |             |           |
| Sylvan Lake Gas Unit #1 0.05          | 0.06      | Gas Wells: Alberta  |             |           |
| Harmattan Leduc Unit #1 4.49          | 3.75      | Gas Wells, Alberta  |             |           |
|                                       |           | Pendor              | 4 0.60      | 4 0.60    |
| Saskatchewan                          | K : 37    | Braeburn (Saddle Hi | lls) 2 0.55 | 2 0.55    |
|                                       | D 2- 20-5 |                     | - 115       | 6 115     |
| Coleville Smiley Viking Sand          | 0.30      |                     | 6 1.15      | 6 1.15    |
| Gas Unit 0.28                         | 0.28      | TOTALS:             | 95 12.31    | 91 12.04  |
| Hoosier Viking Sand Gas Unit 0.25     | 0.25      |                     |             |           |

# NET OIL AND NATURAL GAS LIQUIDS PRODUCTION BY FIELDS

| (Barrels — after royalty)     |           |         |
|-------------------------------|-----------|---------|
| OIL                           |           |         |
| Alberta                       | 1966      | 1965    |
| Swan Hills Unit               | 382,366   | 343,923 |
| Inverness Unit                | 138,927   | 131,992 |
| Virginia Hills Unit           | 132,718   | 116,793 |
| Harmattan-Elkton Unit         | 111,994   | 108,533 |
| Pembina                       | 47,669    | 45,213  |
| Mitsue                        | 41,325    | 30,202  |
| Crossfield Cardium Unit       | 28,672    | 43,912  |
| Westward Ho Unit              | 23,708    | 20,813  |
| Erskine                       | 22,007    | 24,693  |
| Harmattan East Unit           | 18,531    | 20,684  |
| Freeman                       | 13,332    | 10,748  |
| Other Areas                   | 5,385     | 22,407  |
| Saskatchewan                  |           |         |
| Browning-Clarilaw-Midale S.   | 32,279    | 19,013  |
| Ontario                       |           |         |
| Willey-Dunwich                | 5,486     | 3,468   |
| TOTAL                         | 1,004,399 | 942,394 |
| Daily Average                 | 2,752     | 2,582   |
| NATURAL GAS LIQUIDS           |           |         |
| Alberta                       |           |         |
| Carstairs Unit                | 88,256    | 103,317 |
| Harmattan-Elkton Unit         | 56,772    | 45,377  |
| Harmattan East Unit           | 8,096     | 7,652   |
| Calgary Units                 | 4,567     | 2,274   |
| South Elkton Unit             | 3,758     | 1,288   |
| Other Areas                   | 2,047     | 1,683   |
| TOTAL                         | 163,496   | 161,591 |
| Daily Average                 | 447       | 443     |
| OIL + NATURAL GAS<br>LIQUIDS: |           |         |
| Daily Average                 | 3,199     | 3,025   |

#### NET GAS PRODUCTION BY FIELDS

(MMcf — after royalty)

| A | Ħ | h | 0 | 341 | fa |
|---|---|---|---|-----|----|
| A | ш | u | c |     | M  |

| 1966      | 1965  |
|-----------|---|
| 2,652.254 | 3,121.000   |
| 913.428   | 929.176   |
| 314.347   | 324.815   |
| 281.269   | 159.691   |
| 275.698   | 207.867   |
| 243.766   | 209.599   |
| 118.597   | 39.852  |
| 112.732   | 111.637   |
| 81.223    | 93.585  |
| 8.763     |   |
| 53.896    | 36.888  |
|           |   |
|           |   |
| 71.220    | 66.678  |
| 5,127.193 | 5,300.788   |
|           | 2,652.254<br>913.428<br>314.347<br>281.269<br>275.698<br>243.766<br>118.597<br>112.732<br>81.223<br>8.763<br>53.896 |

#### NET SULPHUR PRODUCTION

Daily Average

(Long Tons — after royalty)

#### Alberta

Harmattan Leduc-Carstairs 1,200 ---

14.047

14.523

# ALMENEK LIMITED

# STATEMENT OF INCOME

| Year ended December 31, 1966 (With comparative figures for 1965) |             |
|--|-------------|
| 1966   | 1965        |
| Gross production   | \$4,292,375 |
| Royalties  | 656,792     |
| Operating expenses   | 398,001     |
| 1,161,216  | 1,054,793   |
| Net production income  | 3,237,582   |
| Administrative and general expenses (note 5)                     | 135,936     |
| Interest   | 135,691     |
| 287,977  | 271,627     |
| Profit before the following                                      | 2,965,955   |
| Exploratory drilling and dry hole costs                          | 283,305     |
| Geophysical and geological expense                               | 97,502      |
| Unproven property expense  | 242,534     |
| 749,111  | 623,341     |
| Profit before the following write-offs                           | 2,342,614   |
| Property surrendered (note 2)                                    | 42,133      |
| Depreciation   | 272,601     |
| Depletion  | 659,000     |
| 1,072,420  | 973,734     |
| Income from operations   | 1,368,880   |
| Gain on disposal of marketable securities                        | 16,565      |
| NET INCOME FOR YEAR  | \$1,385,445 |
| STATEMENT OF DEFICIT   |             |
| Year ended December 31, 1966 (With comparative figures for 1965) |             |
| 1966   | 1965        |
| Deficit at beginning of year                                     | \$1,891,749 |
| Adjustment for prior years' depletion (note 2)                   |             |
| 1,785,203  | 1,891,749   |
| Net income for year  | 1,385,445   |
| 562,520  |             |
| Dividends paid   | 911,899     |
| Deficit at end of year   | \$1,418,203 |
|  |             |

# ALMINEX

Incorporated under

## BALANCE SHEET,

(With comparative

| ASSETS  |              |              |
|---|--------------|--------------|
| Current assets:                                       | 1966         | 1965         |
| Cash  | \$ 244,639   | \$ 74,832    |
| Accounts receivable                                   | 447,256      | 165,588      |
| Marketable securities, at cost (market value \$9,475) | 9,650        |              |
| Inventory, at lower of cost or market                 | 8,474        | 5,631        |
| Prepaid expenses                                      | 4,198        | 3,545        |
|   | 714,217      | 249,596      |
| REFUNDABLE DEPOSITS                                   | 71,741       | 74,178       |
| Investments, at cost:                                 |              |              |
| Subsidiary company (note 1):                          |              |              |
| Shares  | 302          | 302          |
| Advances  | 183,062      | 168,670      |
|   | 183,364      | 168,972      |
| Special refundable tax                                | 30,154       |              |
| Other   | 2,516        | 2,446        |
|   | 216,034      | 171,418      |
| Property, plant and equipment (note 2):               |              |              |
| Land, leases and development costs thereon:           |              |              |
| Proven properties                                     | 37,463,060   | 33,163,552   |
| Less Accumulated depletion                            | 5,581,000    | 4,453,000    |
| Less recumulated depiction                            | 31,882,060   | 28,710,552   |
| Unproven properties                                   | 1,035,046    | 4,998,089    |
|   | 32,917,106   | 33,708,641   |
| Plant and equipment                                   | 4,106,710    | 3,418,003    |
| Less Accumulated depreciation                         | 1,955,236    | 1,665,896    |
|   | 2,151,474    | 1,752,107    |
|   | 35,068,580   | 35,460,748   |
|   | \$36,070,572 | \$35,955,940 |

The accompanying notes are an integral part of this statement.

Approved on behalf of the Board.

H. J. FRASER, Director W. F. JAMES, Director



the laws of Canada

#### **DECEMBER 31, 1966**

figures for 1965)

| LIABILITIES                                      |              |                          |
|--|--------------|--------------------------|
| CURRENT LIABILITIES:                             | 1966         | 1965                     |
| Bank loans due within one year, secured (note 3) | \$ 830,000   | \$ 956,000               |
| Accounts payable and accrued expenses            | 37,810       | 66,945                   |
| Special refundable tax                           | 12,000       | er so <del>lu</del> tion |
|  | 879,810      | 1,022,945                |
| Long-term liabilities:                           |              |                          |
| Bank loans, secured (note 3)                     | 2,426,000    | 2,390,000                |
| Less Principal instalments due within one year   |              |                          |
| included under current liabilities               | 830,000      | 956,000                  |
|  | 1,596,000    | 1,434,000                |
| Total liabilities                                | 2,475,810    | 2,456,945                |
|  |              |                          |
| SHAREHOLDERS' EQUITY                             |              |                          |
| CAPITAL STOCK (note 4):                          |              |                          |
| Authorized, 10,000,000 shares without par value  |              |                          |
| Issued, 7,599,161 shares                         | 34,847,107   | 34,847,107               |
| CONTRIBUTED SURPLUS                              | 70,091       | 70,091                   |
|  | 34,917,198   | 34,917,198               |
| Deficit  | 1,322,436    | 1,418,203                |
|  | 33,594,762   | 33,498,995               |
|  | \$36,070,572 | \$35,955,940             |
|  |              | A CONTRACT OF STREET     |

#### **AUDITORS' REPORT**

To The Shareholders of Alminex Limited:

We have examined the balance sheet of Alminex Limited as at December 31, 1966 and the statements of income and deficit for the year ended on that date. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion the accompanying balance sheet and related statements of income and deficit present fairly the financial position of the company as at December 31, 1966 and the results of its operations for the year ended on that date, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year, except for the change in method of transferring property costs to proven properties explained in note 2, of which change we approve.

Our examination also included the accompanying statement of source and disposition of funds which, in our opinion, when considered in relation to the aforementioned statements, presents fairly the changes in working capital position of the company for the year ended December 31, 1966.

Calgary, Canada, March 1, 1967.

THORNE, MULHOLLAND, HOWSON & McPHERSON Chartered Accountants

### STATEMENT OF SOURCE AND DISPOSITION OF FUNDS

Year ended December 31, 1966 (With comparative figures for 1965)

| COMPOR OF EMPRO  | 1966        | 1965  |
|--|-------------|---|
| Source of funds:   |             |   |
| From operations:   |             |   |
| Net income for year  | \$1,222,683 | \$1,385,445                                       |
| Add Depreciation, depletion and property surrendered, not requiring an outlay of funds | 1,072,420   | 973,734   |
|  | 2,295,103   | 2,359,179   |
| Less Dividends paid  | 759,916     | 911,899   |
|  | 1,535,187   | 1,447,280   |
| Decrease (increase) in refundable deposits   | 2,437       | (34,859)  |
| Increase (decrease) in long-term liabilities   | 162,000     | (60,000)  |
|  | 1,699,624   | 1,352,421   |
| Disposition of funds:  |             |   |
| Acquisition of lands and leases (net)  | 59,559      | 227,192   |
| Development  | 298,986     | 463,081   |
| Additions to plant and equipment (net)   | 688,707     | 484,373   |
| Advances to subsidiary company   | 14,392      | 90,121  |
| Increase in special refundable tax   |             |   |
| and other investments  | 30,224      |   |
|  | 1,091,868   | 1,264,767   |
| IMPROVEMENT IN WORKING CAPITAL POSITION  | 607,756     | 87,654  |
| WORKING CAPITAL DEFICIENCY AT BEGINNING OF YEAR:                                       |             |   |
| Current liabilities  | 1,022,945   | 1,189,483   |
| Current assets   | 249,596     | 328,480   |
|  | 773,349     | 861,003   |
| WORKING CAPITAL DEFICIENCY AT END OF YEAR:   |             |   |
| Current liabilities  | 879,810     | 1,022,945   |
| Current assets   | 714,217     | 249,596   |
|  | \$ 165,593  | \$ 773,349  |
|  | Ψ 105,575   | ψ 775,547<br>==================================== |

#### **Notes to Financial Statement**

Year ended December 31, 1966

#### 1. Subsidiary company:

The company in 1964 acquired a wholly-owned subsidiary, Alminex (U.K.) Limited, for the purpose of exploring for oil under a specified area of the North Sea, under license from the British Government and in conjunction with other companies.

During the year the company entered into an agreement with Falconbridge Nickel Mines Limited whereunder Falconbridge can earn a 50% share interest in Alminex (U.K.) Limited by bearing Alminex's share of the cost of drilling two wells.

The subsidiary company is in the exploration stage and has no profit or loss up to December 31, 1966.

#### 2. Property, plant and equipment:

The company's accounting practice is to capitalize property costs and development expenditures on proven properties and to deplete such costs on a unit of production method based on the total of estimated proven and probable reserves of oil and natural gas.

During the year the company adopted the practice of transferring total property costs of an area to proven properties when production is available rather than transferring only those land costs related to the specific well giving rise to proven status. As a result property costs in the amount of approximately \$3,500,000 were transferred from unproven to proven properties in respect of prior years and an adjustment for prior years' depletion in the amount of \$367,000 was charged to deficit account. The provision for depletion in 1966 was increased by approximately \$73,000 as a result of this change.

Property carrying charges, cost of dry holes drilled and exploration expenses are charged against income as incurred. Unproven property costs are charged to income when the properties are surrendered.

Depreciation is provided on the diminishing balance method at maximum rates permissible under the Income Tax Act.

Certain property, plant and equipment was acquired in consideration of the issue of shares of the company in 1959 at values placed upon them by the Board of Directors of the company. Other acquisitions, for cash, are valued at cost.

#### 3. Bank loans:

Credit arrangements with two Canadian chartered banks provide for loans of undetermined amounts which must be repaid in 60 equal consecutive monthly instalments.

These loans are secured by registered general assignment of accounts receivable and general assignments under Section 82 of The Bank Act covering the company's net interest in certain oil properties.

#### 4. Capital stock:

As at December 31, 1966 there were outstanding options to two officers, who are also directors of the company, to purchase a total of 45,000 shares at \$3.40 per share on or before December 10, 1969.

#### 5. Administrative and general expenses:

Remuneration of officers, who are also directors, aggregated \$55,000 (\$55,000 in 1965). This amount is included in administrative and general expenses. No directors' fees as such were paid in 1966 (directors' fees in 1965 amounted to \$963).

#### 6. Taxes on income:

Under the provisions of the Income Tax Act exploration and development expenditures including costs of certain oil and gas rights are deductible from income for the year; any excess of such expenditures may be carried forward to apply against future income. Because of the availability of exploration and development expenditures carried forward from prior years, no taxes on income are payable in respect of the 1966 year. Land, lease and development costs available to be claimed for tax purposes in future years are approximately \$709,000 and capital cost allowances for plant and equipment, \$2,054,000.